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Wendy A. Frick

Signed: Wendy A. Frick**PATENT****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Perez, et al.

Examiner: Not yet assigned

Serial No.: 10/052,589

Art Unit: Not yet assigned

Filed: January 18, 2002

For: **MODEL SYSTEMS FOR  
NEUORDEGENERATIVE AND  
CARDIOVASCULAR DISORDERS**

Attorney Docket No.: 26473/04200

U.S. Patent and Trademark Office  
Box Sequence  
P.O. Box 2327  
Arlington, Virginia 22202**SECOND PRELIMINARY AMENDMENT AND  
STATEMENT REGARDING SEQUENCE LISTING**

Dear Sir:

The following is in response to the Office Communication mailed February 25, 2002.

Please amend the above-described application as follows:

**IN THE SPECIFICATION**

Page 3, line 15:

**BRIEF DESCRIPTION OF THE FIGURES**

Figure 1 shows the nucleotide sequence, SEQ ID NO. 1, of the cDNA which encodes the hamster wild-type  $\alpha_{1B}$  adrenergic receptor and the predicted amino acid sequence, SEQ ID NO. 2, encoded by this nucleotide sequence.

Figure 2 is the DNA sequence, SEQ ID NO. 3, of the murine  $\alpha_{1B}$  adrenergic receptor.

wild-type  $\alpha_{1B}$  receptor on the cell surface of various organs, and then assaying for changes in  $\alpha_{1B}$  receptor function. Such method is useful for identifying compounds which are able to ameliorate the symptoms that result from chronic activation of the  $\alpha_{1B}$  adrenergic receptor and assessing the efficacy of the test compound on pathological symptoms that are associated with chronic activation of the  $\alpha_{1B}$  adrenergic receptor.

The present invention also relates to methods for treating neurodegenerative disorders in a subject, particularly neurodegenerative disorders evidenced by abnormal locomotor activity or seizures. In one embodiment, the method comprises administering a pharmaceutical composition comprising a biologically effective amount of an  $\alpha_1$  adrenergic receptor antagonist to an animal. As used herein the term " $\alpha_1$  adrenergic antagonist" refers to compounds that bind selectively to the  $\alpha_1$  adrenergic receptors and block signaling.

#### BRIEF DESCRIPTION OF THE FIGURES

Figure 1 shows the nucleotide sequence of the cDNA which encodes the hamster wild-type  $\alpha_{1B}$  adrenergic receptor and the predicted amino acid sequence encoded by this nucleotide sequence.

Figure 2 is the DNA sequence of the promoter of the murine  $\alpha_{1B}$  adrenergic receptor.

Figure 3 is a schematic representation of the method used to prepare a vector comprising a sequence encoding the  $\alpha_{1B}$  adrenergic receptor.

Figure 4. (A) A map of the transgene construct showing the size of EcoRI fragments and the binding sites for  $\alpha_{1B}$  - and SV40-specific southern probes. Three different transgenes were constructed with the only difference between each being the  $\alpha_{1B}$ AR cDNA used (either the wild-type (WT), single mutant or triple mutant cDNA). (B) Southern blot analysis of genomic DNA from nontransgenic (NT)(-/-), heterozygous (+/-) and homozygous (+/+) W2 mice. Tail DNA samples were digested with EcoRI, run on 0.8% agarose gels, transferred to nitrocellulose and probed with either the  $\alpha_{1B}$  probe or the SV40 probe. The  $\alpha_{1B}$  probe hybridized to 3.0 and 1.6 kb fragments which represented the endogenous  $\alpha_{1B}$ AR gene and the transgene respectively. Comparatively, the SV40 probe